



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,921	09/20/2000	Jim Barton	TIVO0024	8519
<div>Kirk D Wong Hickman Palermo Truong &amp; Becker LLP 2055 Gateway Place Suite 550 San Jose, CA 95110-1089</div>				
<div>EXAMINER ATALA, JAMIE JO</div>				
<div>ART UNIT 2621</div>				
<div>PAPER NUMBER</div>				
<div>MAIL DATE 12/08/2009</div>				
<div>DELIVERY MODE PAPER</div>				

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/665,921

**Applicant(s)**

BARTON ET AL.

**Examiner**

JAMIE JO ATALA

**Art Unit**

2621

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 28-41 and 55-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-14, 28-41 and 55-68 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-643)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 9, 2009 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### ***Remarks***

3. Claims 1-14 recite a method claim have been examined in regards to a 101 rejection. The specification discloses components (i.e. receiver/tuner) that provide communication beyond the capability of a human being to meaningfully receive using only human capabilities. The "receiving a media stream at said receiver" step requires the use of a receiver. Thus the receiving step is tied to a receiver/tuner and thus to a particular machine and is deemed statutory.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 12-14, 28-36, 39-41, 55-63, and 66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable by Zigmond et al (US 6,400,407) in further view of Shoff et al (US 2004/0210824) in view of Ottesen (US 5,930,493) in further view of Capek et al (US 6,094,677).

**[claim 1]**

In regard to Claim 1, Zigmond et al discloses a method for frame specific tagging of television audio and video broadcast streams with tag translation at a receiver, comprising the steps of:

- receiving said broadcast stream at said receiver (Column 4 Lines 20-30);
- storing said media stream on a storage device on said receiver (Column 6 Lines 11-24 describes the storage of the media stream on a storage device);
- displaying program material in said stored media stream from said one or more storage device to a viewer (Figure 2 shows the display of content from the set-top box wherein the processed video stream is stored and outputted to display 12) however, fails to disclose

- detecting video frame specific tags inserted in the media stream, each of the frame-specific tags specific to a particular video frame of the media streams
- processing said tags; and
- performing appropriate actions in response to said tags which include command and control information instructing said receiver to perform certain actions

Shoff discloses a system for storing material further comprising:

- detecting video frame specific tags inserted into said media stream (The detection and processing of frame specific tags as described in paragraphs 0085-0091. The system provides interactive data to be provided through frame specific tags and triggers. For example, a frame specific HTML tag is presented at a targeted location. The system provides a targeted tagged source (a web page) that appropriate actions are taken upon the detection of the tag. The interactive entertainment system provides digital data with a targeted source to provide content to be displayed on the broadcast stream as described in paragraphs 0085 through Paragraph 0090. As specifically stated in paragraph 0090 the tagged information is maintained in the EPG data structure which corresponds to which

program it pertains to and thereby provides video frame specific tags into the media stream).

- processing said tags (Paragraphs 0085-0090 describes the processing of the tagged data wherein the system stores data from the tagged information that is associated with the program data).

The use of tags as taught by Shoff et al allows for a more interactive entertainment system through the use of tags in the media stream. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media system, as disclosed by Zigmond et al, and further incorporate frame specific tags in the media stream, as taught by Shoff et al, in order to allow for the system to receive instructions based on the individual broadcast segments and thereby making a more efficient broadcasting method.

Ottesen et al teaches the use of tags (Figure 7) further comprising:

- detecting video frame specific tags inserted in the media stream, each of the frame-specific tags specific to a particular video frame of the media streams (This system teaches two different ways of using and processing tags by storing and allowing for personalized retrievable content. Column 9 Lines 45-67 describes the use of tags to point to a particular program segment and thereby store the segment to a particular address. Furthermore, Column 41 Lines 30-67 describes the ability to customized program segments. Both features rely on detecting frame specific tags that are inserted into

the media stream. These tags labeled A1-A7200 provide a specific tag to a particular frame of videos (Column 13 Lines 33+ through Column 14 Lines 1-60) and thereby allows for the system to provide a specific tag to a specific portion of the program content).

It is taught by Ottesen to provide frame specific tagging in order to allow for storing of content and the ability to personalize a data stream. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media system, as disclosed by Zigmond et al in view of Shoff, and further incorporate frame specific tags in the media stream, as taught by Ottesen et al, in order to allow for the system to personalized data streams.

Capek et al further teaches a system for inserting and processing data from a video stream further comprising:

- o performing appropriate actions in response to said tags which include command and control information instructing said receiver to perform certain actions (Column 7 Lines 26-38 describes the control logic being associated with the tag information of the media stream. Furthermore, Column 8 Lines 31+ through Column 9 Lines 1-25 describes the insertions/tag information that allows for control information to be processed through the data being processed).

It is taught by Capek et al to use appropriate insertion data into a video stream to allow for faster and more efficient processing of data (Column 4 Lines 9-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to

use the media and tagging system, as disclosed by Zigmond et al in view of Shoff et al in view of Ottesen, and further incorporate performing actions based on the tags, as taught by Capek et al, in order to allow for the system to become a more interactive and efficient running system through the use of tags within the vide stream.

**[claim 2]**

In regard to Claim 2, Zigmond et al discloses a method of a media stream; however, fails to specifically disclose that the start and end points of the program segment are within a broadcast stream. Shoff et al teaches that the start and end points of the event markers are placed within the broadcast stream as seen in Figure 7. The system extracts the presentation information in order to properly form and disclose program boundaries. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to use the tagging system as disclosed by Zigmond, and further incorporate the tags to be present in a broadcast stream, as taught by Shoff, In order to allow for more effective processing of the media stream.

**[claim 3]**

In regard to Claim 3, Zigmond et al discloses a method wherein said displaying step skips over said program segment in response to receiving viewer input (Column 5 Lines 19-27 describes the displaying step that skips over the program segment in response from the user via the remote).

**[claim 4]**



In regard to Claim 4, Zigmond et al discloses a method having a displaying step automatically skips said program segment (Column 9 Lines 35-63 describes the step of automatically skipping the program segment).

**[claim 5]**

In regard to Claim 5, Zigmond et al discloses a method of displaying a menu to the viewer based on information included in a tag (Column 5 Lines 25-27 describes the menu that is displayed to the user regarding tagged information).

**[claims 6]**

In regard to Claims 6, Zigmond et al discloses a method wherein the processing step records the current program in the broadcast stream on said storage device based on information included in a tag (Column 9 Lines 35-63 describes the processing step that records the current program in the broadcast stream on the storage device based on the information included in the tag).

**[claim 7]**

In regard to Claim 7 Zigmond et al discloses a method wherein the processing step further comprising the steps of:

- displaying icons to a viewer (Column 5 Lines 3-40); however, fails to disclose
  - displaying multiple icons
  - accepting viewer input information
  - scrolling through multiple icons based on viewer input

- o selecting a particular icon based on the viewer's input information  
performing an action associated with the selected icon

Shoff et al discloses a system for interactive processing of data further comprising:

- o displaying multiple icons (Figure 8a-8b shows the icon to allow for the user to enter interactive mode and thereby showing multiple other icons for selecting)
- o accepting viewer input information (Paragraph 0017 describes the accepting of viewer input information to launch interactive mode)
- o scrolling through multiple icons based on viewer input (Paragraphs 0063-0071 describes the processing of various icons to allow for user input as further seen in Figure 8b)
- o selecting a particular icon based on the viewer's input information  
performing an action associated with the selected icon (Paragraphs 0068-0071 describes the selecting of an icon based on viewer's input and the action of allowing various control options to be initiated with interactivity).

Shoff et al teaches a system for alerting the viewer and further providing interactive data (paragraph 0017). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the receiving system, as disclosed by Zigmond, and further incorporate a system for displaying multiple icons for processing, as taught by Shoff et al, in order to allow for a more interactive video system.

**[claim 8]**

In regard to Claims 8, Zigmond et al discloses a method comprising the steps of:

- wherein said processing step displays an icon to the viewer based on information included in a tag (Column 9 Lines 9-33 describes the process of displaying an icon to the viewer based on information included in the tag);
- accepting viewer input information and interacting with the viewer based on the tag information (Column 5 Lines 19-41 describes the accepting of the input information and interacting with the tag information); however, fails to disclose
  - in response to accepting viewer input information performing one or more actions based on the tag information
  - saving an exit point in the program material prior to performing the one or more actions
  - returning to said exit point upon completion of the one or more actions

Shoff et al discloses a system for interactive processing of data further comprising:

- in response to accepting viewer input information performing one or more actions based on the tag information (Paragraphs 0063-0071 describes the processing of various icons to allow for user input as further seen in Figure 8b and thereby providing a system action based on tagged data)

Art Unit: 2621

- saving an exit point in the program material prior to performing the one or more actions (Paragraphs 0065-0071 describes exiting current viewing mode to go into interactive mode);
- returning to said exit point upon completion of the one or more actions (Paragraphs 0065-0071 describes the completion of interactive mode).

Shoff et al teaches a system for alerting the viewer and further providing interactive data (paragraph 0017). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the receiving system, as disclosed by Zigmond, and further incorporate a system for displaying response to viewer actions, as taught by Shoff et al, in order to allow for a more interactive video system.

**[claim 9]**

In regard to Claim 9 Zigmond et al discloses the method further comprising the steps of:

- presenting a plurality of menus to the viewer for generating a lead (Figure 9 Lines 9-32 describes the presenting of plurality of menus to viewers for generating a lead on advertisements); and
- forwarding the viewer's contact information of the viewer to a third party upon viewer approval (Figure 1 shows the bi-directional communication that happens from the server unit to the user which forwards appropriate information and furthermore is described in Column 4 Lines 49-65).

**[claim 12]**

In regard to Claim 12, Zigmond et al discloses a process and apparatus further comprising the steps of:

- presenting the content of a Web site's Web Page to the viewer in response to the viewer's input wherein the viewer is allowed to interact with the web site (Column 7 Lines 40+ describes the presenting of web site information to the viewer)
- interacting with said web site based on viewer input information (Column 7 Lines 40+ further describes the selection and processing of data as the user access the web site).

**[claim 13]**

In regard to Claim 13, Zigmond et al discloses a process and apparatus wherein said tags allow a system administrator to remotely configure said receiver (Figure 1 shows the bi-directional communication allowing a system administrator to remotely configure and receive content through the receiver. Although, Zigmond et al specifically discloses a system administrator to remotely configure the receiver information regarding WebTV Networks Inc is described in Column 1 Lines 14-67 wherein it is well known in the art that data regarding administrative tasks can be transmitted via servers to set top boxes to allow for various configuring of the receiver).

**[claim 14]**

In regard to Claims 14, Zigmond et al discloses the method further comprising the steps of:

- marking indexes in said program material based on tag information and jumping to an index selected by the viewer (Column 8 Lines 37-64 describes the marking of indexes of the program material based on tag information and jumping to an index selection by the viewer).

**[claim 28]**

In regard to Claim 28, Zigmond et al discloses an apparatus for frame specific tagging of television audio and video broadcast streams with tag translation at a receiver, comprising the steps of:

- a storage device on a receiver (Column 4 Lines 20-30);
- a module that receives said media stream at said receiver (Figure 2)
- a module that stores said media stream on a storage device on said receiver (Column 6 Lines 11-24 describes the storage of the media stream on a storage device); however, fails to disclose
  - a module that detects video frame specific tags inserted in the media stream
  - a module that processes said tags; and
  - a module that performs appropriate actions in response to said tags which include command and control information instructing said receiver to perform certain actions

Zigmond discloses a system for storing material further comprising:

- a module that detects video frame specific tags inserted into said media stream (The detection and processing of frame specific tags as described in paragraphs 0085-0091. The system provides interactive data to be provided through frame specific tags and triggers. For example, a frame specific HTML tag is presented at a targeted location. The system provides a targeted tagged source (a web page) that appropriate actions are taken upon the detection of the tag. The interactive entertainment system provides digital data with a targeted source to provide content to be displayed on the broadcast stream as described in paragraphs 0085 through Paragraph 0090. As specifically stated in paragraph 0090 the tagged information is maintained in the EPG data structure which corresponds to which program it pertains to and thereby provides video frame specific tags into the media stream).
- a module that processes said tags (Paragraphs 0085-0090 describes the processing of the tagged data wherein the system stores data from the tagged information that is associated with the program data).

The use of tags as taught by Shoff et al allows for a more interactive entertainment system through the use of tags in the media stream. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media system, as disclosed by Zigmond et al, and further incorporate frame

specific tags in the media stream, as taught by Shoff et al, in order to allow for the system to receive instructions based on the individual broadcast segments and thereby making a more efficient broadcasting method.

Ottesen et al teaches the use of tags (Figure 7) further comprising:

- detecting video frame specific tags inserted in the media stream, each of the frame-specific tags specific to a particular video frame of the media streams (This system teaches two different ways of using and processing tags by storing and allowing for personalized retrievable content. Column 9 Lines 45-67 describes the use of tags to point to a particular program segment and thereby store the segment to a particular address. Furthermore, Column 41 Lines 30-67 describes the ability to customized program segments. Both features rely on detecting frame specific tags that are inserted into the media stream. These tags labeled A1-A7200 provide a specific tag to a particular frame of videos (Column 13 Lines 33+ through Column 14 Lines 1-60) and thereby allows for the system to provide a specific tag to a specific portion of the program content).

It is taught by Ottesen to provide frame specific tagging in order to allow for storing of content and the ability to personalize a data stream. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media system, as disclosed by Zigmond et al in view of Shoff, and further incorporate



frame specific tags in the media stream, as taught by Ottesen et al in order to allow for the system to personalized data streams.

Capek et al further teaches a system for inserting and processing data from a video stream further comprising:

- o a module that performs appropriate actions in response to said tags which include command and control information instructing said receiver to perform certain actions (Column 7 Lines 26-38 describes the control logic being associated with the tag information of the media stream. Furthermore, Column 8 Lines 31+ through Column 9 Lines 1-25 describes the insertions/tag information that allows for control information to be processed through the data being processed).

It is taught by Capek et al to use appropriate insertion data into a video stream to allow for faster and more efficient processing of data (Column 4 Lines 9-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media and tagging system, as disclosed by Zigmond et al in view of Shoff et al, and further incorporate performing actions based on the tags, as taught by Shoff et al, in order to allow for the system to become a more interactive and efficient running system through the use of tags within the vide stream.

**[claim 29]**

In regard to Claim 29, Zigmond et al discloses an apparatus of a media stream; however, fails to specifically disclose that the start and end points of the program

segment are within a broadcast stream. Shoff et al teaches that the start and end points of the event markers are placed within the broadcast stream as seen in Figure 7. The system extracts the presentation information in order to properly form and disclose program boundaries. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to use the tagging system as disclosed by Zigmond, and further incorporate the tags to be present in a broadcast stream, as taught by Shoff, in order to allow for more effective processing of the media stream.

**[claim 30]**

In regard to Claim 30, Zigmond et al discloses an apparatus wherein said displaying step skips over said program segment in response to receiving viewer input (Column 5 Lines 19-27 describes the displaying step that skips over the program segment in response from the user via the remote).

**[claim 31]**

In regard to Claim 31, Zigmond et al discloses an apparatus having a displaying step automatically skips said program segment (Column 9 Lines 35-63 describes the step of automatically skipping the program segment).

**[claim 32]**

In regard to Claim 32, Zigmond et al discloses an apparatus of displaying a menu to the viewer based on information included in a tag (Column 5 Lines 25-27 describes the menu that is displayed to the user regarding tagged information).

**[claim 33]**

In regard to Claims 33, Zigmond et al discloses an apparatus wherein the processing step records the current program in the broadcast stream on said storage device based on information included in a tag (Column 9 Lines 35-63 describes the processing step that records the current program in the broadcast stream on the storage device based on the information included in the tag).

**[claim 34]**

In regard to Claim 34 Zigmond et al discloses an apparatus wherein the processing step further comprising the steps of:

- displaying icons to a viewer (Column 5 Lines 3-40); however, fails to disclose
  - displaying multiple icons
  - accepting viewer input information
  - scrolling through multiple icons based on viewer input
  - selecting a particular icon based on the viewer's input information
  - performing an action associated with the selected icon

Shoff et al discloses a system for interactive processing of data further comprising:

- displaying multiple icons (Figure 8a-8b shows the icon to allow for the user to enter interactive mode and thereby showing multiple other icons for selecting)
- accepting viewer input information (Paragraph 0017 describes the accepting of viewer input information to launch interactive mode)

- scrolling through multiple icons based on viewer input (Paragraphs 0063-0071 describes the processing of various icons to allow for user input as further seen in Figure 8b)
- selecting a particular icon based on the viewer's input information performing an action associated with the selected icon (Paragraphs 0068-0071 describes the selecting of an icon based on viewer's input and the action of allowing various control options to be initiated with interactivity).

Shoff et al teaches a system for alerting the viewer and further providing interactive data (paragraph 0017). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the receiving system, as disclosed by Zigmond, and further incorporate a system for displaying multiple icons for processing, as taught by Shoff et al, in order to allow for a more interactive video system.

**[claim 35]**

In regard to Claims 35, Zigmond et al discloses an apparatus comprising the steps of:

- wherein said processing step displays an icon to the viewer based on information included in a tag (Column 9 Lines 9-33 describes the process of displaying an icon to the viewer based on information included in the tag);
- accepting viewer input information and interacting with the viewer based on the tag information (Column 5 Lines 19-41 describes the accepting of

the input information and interacting with the tag information); however, fails to disclose

- in response to accepting viewer input information performing one or more actions based on the tag information
- saving an exit point in the program material prior to performing the one or more actions
- returning to said exit point upon completion of the one or more actions

Shoff et al discloses a system for interactive processing of data further comprising:

- in response to accepting viewer input information performing one or more actions based on the tag information (Paragraphs 0063-0071 describes the processing of various icons to allow for user input as further seen in Figure 8b and thereby providing a system action based on tagged data)
- saving an exit point in the program material prior to performing the one or more actions (Paragraphs 0065-0071 describes exiting current viewing mode to go into interactive mode);
- returning to said exit point upon completion of the one or more actions (Paragraphs 0065-0071 describes the completion of interactive mode).

Shoff et al teaches a system for alerting the viewer and further providing interactive data (paragraph 0017). Therefore it would have been obvious to one of ordinary skill in the

art at the time of the invention to use the receiving system, as disclosed by Zigmond, and further incorporate a system for displaying response to viewer actions, as taught by Shoff et al, in order to allow for a more interactive video system.

**[claim 36]**

In regard to Claim 36 Zigmond et al discloses an apparatus further comprising the steps of:

- presenting a plurality of menus to the viewer for generating a lead (Figure 9 Lines 9-32 describes the presenting of plurality of menus to viewers for generating a lead on advertisements); and
- forwarding the viewer's contact information of the viewer to a third party upon viewer approval (Figure 1 shows the bi-directional communication that happens from the server unit to the user which forwards appropriate information and furthermore is described in Column 4 Lines 49-65).

**[claim 39]**

In regard to Claim 39, Zigmond et al discloses an apparatus further comprising the steps of:

- presenting the content of a Web site's Web Page to the viewer in response to the viewer's input wherein the viewer is allowed to interact with the web site (Column 7 Lines 40+ describes the presenting of web site information to the viewer)

- interacting with said web site based on viewer input information (Column 7 Lines 40+ further describes the selection and processing of data as the user access the web site).

**[claim 40]**

In regard to Claim 40, Zigmond et al discloses an apparatus wherein said tags allow a system administrator to remotely configure said receiver (Figure 1 shows the bi-directional communication allowing a system administrator to remotely configure and receive content through the receiver. Although, Zigmond et al specifically discloses a system administrator to remotely configure the receiver information regarding WebTV Networks Inc is described in Column 1 Lines 14-67 wherein it is well known in the art that data regarding administrative tasks can be transmitted via servers to set top boxes to allow for various configuring of the receiver).

**[claim 41]**

In regard to Claims 41, Zigmond et al discloses the apparatus further comprising the steps of:

- marking indexes in said program material based on tag information and jumping to an index selected by the viewer (Column 8 Lines 37-64 describes the marking of indexes of the program material based on tag information and jumping to an index selection by the viewer).

**[claim 55]**

In regard to Claim 1, Zigmond et al discloses a program storage medium readable by a computer tangibly embodying a program if instruction executable by the computer to

perform frame specific tagging of television audio and video broadcast streams with tag translation at a receiver, comprising the steps of:

- receiving said broadcast stream at said receiver (Column 4 Lines 20-30);
- storing said media stream on a storage device on said receiver (Column 6 Lines 11-24 describes the storage of the media stream on a storage device);
- displaying program material in said stored media stream from said storage device to a viewer (Figure 2 shows the display of content from the set-top box wherein the processed video stream is stored and outputted to display 12) however, fails to disclose
  - detecting video frame specific tags inserted in the media stream
  - processing said tags; and
  - performing appropriate actions in response to said tags which include command and control information instructing said receiver to perform certain actions

Zigmond discloses a system for storing material further comprising:

- detecting video frame specific tags inserted into said media stream  
(The detection and processing of frame specific tags as described in paragraphs 0085-0091. The system provides interactive data to be provided through frame specific tags and triggers. For example, a frame specific HTML tag is presented at a targeted location. The



system provides a targeted tagged source (a web page) that appropriate actions are taken upon the detection of the tag. The interactive entertainment system provides digital data with a targeted source to provide content to be displayed on the broadcast stream as described in paragraphs 0085 through Paragraph 0090. As specifically stated in paragraph 0090 the tagged information is maintained in the EPG data structure which corresponds to which program it pertains to and thereby provides video frame specific tags into the media stream).

- processing said tags (Paragraphs 0085-0090 describes the processing of the tagged data wherein the system stores data from the tagged information that is associated with the program data).

The use of tags as taught by Shoff et al allows for a more interactive entertainment system through the use of tags in the media stream. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media system, as disclosed by Zigmond et al, and further incorporate frame specific tags in the media stream, as taught by Shoff et al, in order to allow for the system to receive instructions based on the individual broadcast segments and thereby making a more efficient broadcasting method.

Ottesen et al teaches the use of tags (Figure 7) further comprising:

- detecting video frame specific tags inserted in the media stream, each of the frame-specific tags specific to a particular video frame

of the media streams (This system teaches two different ways of using and processing tags by storing and allowing for personalized retrievable content. Column 9 Lines 45-67 describes the use of tags to point to a particular program segment and thereby store the segment to a particular address. Furthermore, Column 41 Lines 30-67 describes the ability to customized program segments. Both features rely on detecting frame specific tags that are inserted into the media stream. These tags labeled A1-A7200 provide a specific tag to a particular frame of videos (Column 13 Lines 33+ through Column 14 Lines 1-60) and thereby allows for the system to provide a specific tag to a specific portion of the program content).

It is taught by Ottesen to provide frame specific tagging in order to allow for storing of content and the ability to personalize a data stream. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media system, as disclosed by Zigmond et al in view of Shoff, and further incorporate frame specific tags in the media stream, as taught by Ottesen et al in order to allow for the system to personalized data streams.

Capek et al further teaches a system for inserting and processing data from a video stream further comprising:

- performing appropriate actions in response to said tags which include command and control information instructing said receiver to perform certain actions (Column 7 Lines 26-38 describes the

control logic being associated with the tag information of the media stream. Furthermore, Column 8 Lines 31+ through Column 9 Lines 1-25 describes the insertions/tag information that allows for control information to be processed through the data being processed).

It is taught by Capek et al to use appropriate insertion data into a video stream to allow for faster and more efficient processing of data (Column 4 Lines 9-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the media and tagging system, as disclosed by Zigmond et al in view of Shoff et al, and further incorporate performing actions based on the tags, as taught by Shoff et al, in order to allow for the system to become a more interactive and efficient running system through the use of tags within the vide stream.

**[claim 56]**

In regard to Claim 56, Zigmond et al discloses a program storage medium of a media stream; however, fails to specifically disclose that the start and end points of the program segment are within a broadcast stream. Shoff et al teaches that the start and end points of the event markers are placed within the broadcast stream as seen in Figure 7. The system extracts the presentation information in order to properly form and disclose program boundaries. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to use the tagging system as disclosed by Zigmond, and further incorporate the tags to be present in a broadcast stream, as taught by Shoff, In order to allow for more effective processing of the media stream.

**[claim 57]**

In regard to Claim 57, Zigmond et al discloses a program storage medium wherein said displaying step skips over said program segment in response to receiving viewer input (Column 5 Lines 19-27 describes the displaying step that skips over the program segment in response from the user via the remote).

**[claim 58]**

In regard to Claim 58, Zigmond et al discloses a program storage medium having a displaying step automatically skips said program segment (Column 9 Lines 35-63 describes the step of automatically skipping the program segment).

**[claim 59]**

In regard to Claim 59, Zigmond et al discloses a program storage medium of displaying a menu to the viewer based on information included in a tag (Column 5 Lines 25-27 describes the menu that is displayed to the user regarding tagged information).

**[claims 60]**

In regard to Claims 60, Zigmond et al discloses a program storage medium wherein the processing step records the current program in the broadcast stream on said storage device based on information included in a tag (Column 9 Lines 35-63 describes the processing step that records the current program in the broadcast stream on the storage device based on the information included in the tag).

**[claim 61]**

In regard to Claim 61, Zigmond et al disclose a program storage medium wherein the processing step further comprising the steps of:

- displaying icons to a viewer (Column 5 Lines 3-40); however, fails to disclose
  - displaying multiple icons
  - accepting viewer input information
  - scrolling through multiple icons based on viewer input
  - selecting a particular icon based on the viewer's input information
  - performing an action associated with the selected icon

Shoff et al discloses a system for interactive processing of data further comprising:

- displaying multiple icons (Figure 8a-8b shows the icon to allow for the user to enter interactive mode and thereby showing multiple other icons for selecting)
- accepting viewer input information (Paragraph 0017 describes the accepting of viewer input information to launch interactive mode)
- scrolling through multiple icons based on viewer input (Paragraphs 0063-0071 describes the processing of various icons to allow for user input as further seen in Figure 8b)
- selecting a particular icon based on the viewer's input information performing an action associated with the selected icon (Paragraphs 0068-0071 describes the selecting of an icon based on viewer's input and the action of allowing various control options to be initiated with interactivity).

Shoff et al teaches a system for alerting the viewer and further providing interactive data (paragraph 0017). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the receiving system, as disclosed by Zigmond, and further incorporate a system for displaying multiple icons for processing, as taught by Shoff et al, in order to allow for a more interactive video system.

**[claim 62]**

In regard to Claims 62, Zigmond et al discloses a program storage medium comprising the steps of:

- wherein said processing step displays an icon to the viewer based on information included in a tag (Column 9 Lines 9-33 describes the process of displaying an icon to the viewer based on information included in the tag);
- accepting viewer input information and interacting with the viewer based on the tag information (Column 5 Lines 19-41 describes the accepting of the input information and interacting with the tag information); however, fails to disclose
  - in response to accepting viewer input information performing one or more actions based on the tag information
  - saving an exit point in the program material prior to performing the one or more actions
  - returning to said exit point upon completion of the one or more actions

Shoff et al discloses a system for interactive processing of data further comprising:

- in response to accepting viewer input information performing one or more actions based on the tag information (Paragraphs 0063-0071 describes the processing of various icons to allow for user input as further seen in Figure 8b and thereby providing a system action based on tagged data)
- saving an exit point in the program material prior to performing the one or more actions (Paragraphs 0065-0071 describes exiting current viewing mode to go into interactive mode);
- returning to said exit point upon completion of the one or more actions (Paragraphs 0065-0071 describes the completion of interactive mode).

Shoff et al teaches a system for alerting the viewer and further providing interactive data (paragraph 0017). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the receiving system, as disclosed by Zigmond, and further incorporate a system for displaying response to viewer actions, as taught by Shoff et al, in order to allow for a more interactive video system.

**[claim 63]**

In regard to Claim 63 Zigmond et al discloses the program storage medium further comprising the steps of:

- presenting a plurality of menus to the viewer for generating a lead (Figure 9 Lines 9-32 describes the presenting of plurality of menus to viewers for generating a lead on advertisements); and
- forwarding the viewer's contact information of the viewer to a third party upon viewer approval (Figure 1 shows the bi-directional communication that happens from the server unit to the user which forwards appropriate information and furthermore is described in Column 4 Lines 49-65).

**[claim 66]**

In regard to Claim 66, Zigmond et al discloses a program storage medium further comprising the steps of:

- presenting the content of a Web site's Web Page to the viewer in response to the viewer's input wherein the viewer is allowed to interact with the web site (Column 7 Lines 40+ describes the presenting of web site information to the viewer)
- interacting with said web site based on viewer input information (Column 7 Lines 40+ further describes the selection and processing of data as the user access the web site).

**[claim 67]**

In regard to Claim 67, Zigmond et al discloses a program storage medium wherein said tags allow a system administrator to remotely configure said receiver (Figure 1 shows the bi-directional communication allowing a system administrator to remotely configure and receive content through the receiver. Although, Zigmond et al specifically discloses



a system administrator to remotely configure the receiver information regarding WebTV Networks Inc is described in Column 1 Lines 14-67 wherein it is well known in the art that data regarding administrative tasks can be transmitted via servers to set top boxes to allow for various configuring of the receiver).

**[claim 68]**

In regard to Claims 14, Zigmond et al discloses the program storage medium further comprising the steps of:

- marking indexes in said program material based on tag information and jumping to an index selected by the viewer (Column 8 Lines 37-64 describes the marking of indexes of the program material based on tag information and jumping to an index selection by the viewer).

Claims 10, 37, 64 are rejected under 35 U.S.C. 103(a) as being unpatentable by Zigmond et al (US 6,400,407) in further view of Shoff et al (US 2004/0210824) in view of Ottesen (US 5,930,493) in further view of Capek et al (US 6,094,677) in further view of Alexander (US 6,177,931).

**[claim 10]**

In regard to Claim 10, Zigmond discloses a media system; however, fails to disclose

- presenting a plurality of menus to the viewer for generating sale of an advertised product or service
- forwarding purchase information of the view to proper merchant

Alexander teaches a system that has interactive video program further comprising:

- presenting a plurality of menus to the viewer for generating sale of an advertised product or service (Figure 10b shows the various advertisement windows);
- forwarding purchase information of the view to proper merchant (Column 29 Lines 13+ through Column 30 Lines 1-67 describes the purchase and customer information that can be forward to various outlets).

Thereby allowing the user to choose various programming options when desiring to purchase an advertised object. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a system of tagging broadcast streams, as disclosed by Zigmond et al in view of Shoff et al in view of Capek et al, and further incorporate a system which provides user the information when purchasing items, as disclosed by Alexander et al, in order to allow for an efficient interactive recording system.

**[claim 37]**

In regard to Claim 37, Zigmond discloses a media system; however, fails to disclose

- presenting a plurality of menus to the viewer for generating sale of an advertised product or service
- forwarding purchase information of the view to proper merchant

Alexander teaches a system that has interactive video program further comprising:

- presenting a plurality of menus to the viewer for generating sale of an advertised product or service (Figure 10b shows the various advertisement windows);

- forwarding purchase information of the view to proper merchant (Column 29 Lines 13+ through Column 30 Lines 1-67 describes the purchase and customer information that can be forward to various outlets).

Thereby allowing the user to choose various programming options when desiring to purchase an advertised object. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a system of tagging broadcast streams, as disclosed by Zigmond et al in view of Shoff et al in view of Capek et al, and further incorporate a system which provides user the information when purchasing items, as disclosed by Alexander et al, in order to allow for an efficient interactive recording system.

**[claim 64]**

In regard to Claim 64, Zigmond discloses a media system; however, fails to disclose

- presenting a plurality of menus to the viewer for generating sale of an advertised product or service
- forwarding purchase information of the view to proper merchant

Alexander teaches a system that has interactive video program further comprising:

- presenting a plurality of menus to the viewer for generating sale of an advertised product or service (Figure 10b shows the various advertisement windows);
- forwarding purchase information of the view to proper merchant (Column 29 Lines 13+ through Column 30 Lines 1-67 describes the purchase and customer information that can be forward to various outlets).

Thereby allowing the user to choose various programming options when desiring to purchase an advertised object. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a system of tagging broadcast streams, as disclosed by Zigmond et al in view of Shoff et al in view of Capek et al, and further incorporate a system which provides user the information when purchasing items, as disclosed by Alexander et al, in order to allow for an efficient interactive recording system.

Claims 11, 38, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zigmond et al (US 6,400,407) in further view of Shoff et al (US 2004/0210824) ) in view of Ottesen (US 5,930,493) in further view of Capek et al (US 6,094,677) in further view of Dunn et al (US 5,648,824).

**[claims 11]**

In regard to Claims 11, Zigmond et al, discloses the process and apparatus for frame specific tagging of television audio and video broadcast streams with tag translation; however, fails to disclose

- the presenting a set of program recording options to the viewer; and
- scheduling the viewer's recording preferences.

Dunn et al discloses a system that has user interface allowing video controlling through options such as playback, record, fast forward, etc further comprising

- the presenting a set of program recording options to the viewer (Figure 3 shows the user information regarding scheduling as described in Column 5 Lines 27-65); and
- scheduling the viewer's recording preferences (Column 5 Lines 27-65 discloses the recording of data based on viewer's preferences).

Thereby allowing the user to choose various programming options when setting a recording schedule which allows for more accurate recording schedules. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a system of tagging broadcast streams, as disclosed by Zigmond et al in view of Shoff et al in view of Capek et al, and further incorporate a system which provides user the information regarding recording of the programs, as disclosed by Dunn et al, in order to allow for the user to record specific information and thereby make an efficient interactive recording system.

**[claims 38]**

In regard to Claims 38, Zigmond et al, discloses apparatus for frame specific tagging of television audio and video broadcast streams with tag translation; however, fails to discloses

- the presenting a set of program recording options to the viewer; and
- scheduling the viewer's recording preferences.

Dunn et al discloses a system that has user interface allowing video controlling through options such as playback, record, fast forward, etc further comprising

- the presenting a set of program recording options to the viewer (Figure 3 shows the user information regarding scheduling as described in Column 5 Lines 27-65); and
- scheduling the viewer's recording preferences (Column 5 Lines 27-65 discloses the recording of data based on viewer's preferences).

Thereby allowing the user to choose various programming options when setting a recording schedule which allows for more accurate recording schedules. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a system of tagging broadcast streams, as disclosed by Zigmond et al in view of Shoff et al in view of Capek et al, and further incorporate a system which provides user the information regarding recording of the programs, as disclosed by Dunn et al, in order to allow for the user to record specific information and thereby make an efficient interactive recording system.

**[claim 65]**

In regard to Claims 65, Zigmond et al, discloses program storage medium for frame specific tagging of television audio and video broadcast streams with tag translation; however, fails to discloses

- the presenting a set of program recording options to the viewer; and
- scheduling the viewer's recording preferences.

Dunn et al discloses a system that has user interface allowing video controlling through options such as playback, record, fast forward, etc further comprising

- the presenting a set of program recording options to the viewer (Figure 3 shows the user information regarding scheduling as described in Column 5 Lines 27-65); and
- scheduling the viewer's recording preferences (Column 5 Lines 27-65 discloses the recording of data based on viewer's preferences).

Thereby allowing the user to choose various programming options when setting a recording schedule which allows for more accurate recording schedules. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a system of tagging broadcast streams, as disclosed by Zigmond et al in view of Shoff et al in view of Capek et al, and further incorporate a system which provides user the information regarding recording of the programs, as disclosed by Dunn et al, in order to allow for the user to record specific information and thereby make an efficient interactive recording system.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE JO VENT ATALA whose telephone number is (571)272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/JAMIE JO ATALA/  
Examiner, Art Unit 2621